

## 1 ABSTRACT OF THE DISCLOSURE

2

3 Systems, methods and apparatus are provided for  
4 demapping a received wireless signal. The wireless signal  
5 includes signal-bearing data without accompanying pilot  
6 signals, and demapping is accomplished by extracting  
7 information from the signal-bearing data by reducing and  
8 averaging differential quadrature components or quadrature  
9 components of the received signal. Two embodiments are  
10 provided for the demapping procedure within a phase  
11 tracking loop. A first embodiment corrects the received  
12 signal, while a second embodiment corrects the  
13 constellation points